

CLAIMS

1. A through socket comprising:

a socket body arranged to load first and second memory modules;

a first conductor arranged to connect a contact on one surface of the first

5 memory module to a contact on one surface of the second memory module; and
a second conductor arranged to connect a contact on the other surface of the
first memory module to a contact on the other surface of the second memory
module.

10 2. The through socket of claim 1, wherein the socket body is arranged to
load the first and second memory modules in the same direction.

15 3. The through socket of claim 1, wherein the socket body is arranged to
load the first and second memory modules in opposite directions.

4. A through socket comprising:

a socket body arranged to load a first memory module, a second memory
module, and a third memory module;

a first conductor arranged to connect a contact on one surface of the first

20 memory module to a contact on one surface of the second memory module;
a second conductor arranged to connect a contact on the other surface of the
second memory module to a contact on the first surface of the third memory module;
and

a third conductor arranged to connect a contact on the other surface of the

25 first memory module to a contact on the other surface of the third memory module.

5. The through socket of claim 4, wherein the socket body is arranged to
load the first, second, and third memory modules in the same direction.

30 6. A through socket, comprising:

a socket body arranged to load N memory modules; and

N conductors arranged to connect contacts on the surfaces of the memory
module in a daisy-chain configuration.

5 7. A turn around socket comprising:

a socket body arranged to load a first memory module; and

a first conductor arranged to connect a contact on one surface of the first
memory module to a contact on the other surface of the first memory module.

10 8. The turn around socket of claim 7, wherein the socket body is arranged
to load a second memory module, and further comprising a second conductor
arranged to connect a contact on one surface of the second memory module to a
contact on the other surface of the second memory module.

15 9. The turn around socket of claim 7, wherein the socket body is arranged
to load the first and second memory modules in the same direction.

20 10. The turn around socket of claim 7, wherein the socket body is arranged
to load the first and second memory modules in opposite directions.

11. A turn around socket, comprising:

a socket body arranged to load N memory modules;

N conductors, each conductor arranged to connect a contact on one surface

25 of a memory module to a contact on the other surface of the same memory module.

12. A memory system comprising:

a plurality of memory modules;

at least one through socket for electrically connecting at least two memory

25 modules of the plurality of memory modules; and

at least one turn around socket for electrically connecting one surface of one
of the plurality of memory modules to the other surface of the same memory module.

30 13. The memory system of claim 12, wherein each memory module

comprises:

a plurality of memory devices loaded on both surfaces of the memory module;

and

four contacts, said contacts located at both ends of both surfaces of the
memory module and operative as electrical paths.

14. The memory system of claim 12, wherein the at least two memory modules are loaded in opposite directions.
- 5 15. The memory system of claim 12, wherein the at least two memory modules are loaded in the same direction.
16. The memory system of claim 12, wherein the turn around socket comprises:
- 10 a socket body for loading a second memory module in the same direction as a first memory module loaded in a base socket; and
- a socket conductor for electrically connecting the contacts of both surfaces of the second memory module.
- 15 17. A memory module comprising:
- a printed circuit board having first and second surfaces and first and second ends;
- a plurality of memory devices loaded on the first and second surfaces of the memory module; and
- 20 four contacts, said contacts arranged at the first and second ends of the first and second surfaces of the memory module and operative as electrical paths.
18. A memory system comprising:
- N memory modules;
- 25 a base socket for loading at least one of the N memory modules;
- a plurality of through sockets electrically connecting the surfaces of the N memory modules in a daisy-chain configuration; and
- a turn around socket electrically connecting the contacts of both surfaces of the Nth memory module.
- 30 19. The memory system of claim 18, wherein each of said plurality of through sockets further comprises:
- a through socket body arranged to load the memory modules, each of the plurality of through sockets adapted to load at least two memory modules; and

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a plurality of through conductors arranged to electrically connect the surfaces of each memory module in a daisy-chain configuration.

20. The memory system of claim 18, wherein the turn around socket
5 comprises:

a turn around socket body arranged to load at least one of N memory modules; and

at least a first turn around conductor arranged to electrically connect the contacts of both surfaces of the Nth memory module.

10 21. The memory system of claim 18, wherein the plurality of conductors and the turn around socket form an electrical circuit having its termini in the base socket.

15 20. The memory system of claim 18, wherein the plurality of memory modules are loaded in opposite directions.

21. The memory system of claim 18, wherein the plurality of memory modules are loaded in the same direction.

20 22. The memory system of claim 18, wherein each memory module comprises:

a plurality of memory devices loaded on both surfaces of the memory module; and

25 four contacts, said contacts located at both ends of both surfaces of the memory module and operative as electrical paths.